LIST OF U.S. CUSTOMS LABORATORY METHODS

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40-04	ASTM D 3452	Practice for Rubber - Identification by Pyrolysis-Gas Chromatography
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ASTM D 1076
Specification for Rubber - Concentrated, Ammonia Preserved, Creamed and Centrifuged Natural Latex

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health pract ices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

The reference contains a number of procedures of which a few are pertinent to the analyzing of natural rubber latex included in Section V of Chapter 40 Subheading 4001.10.00 of the Harmonized Tariff Schedule of the United States (HTSUS).

2 REFERENCES

ASTM D 1076
Specification for Rubber - Concentrated, Ammonia Preserved, Creamed and Centrifuged Natural Latex

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ASTM D 3677
Test Methods for Rubber Identification by Infrared Spectrophotometry

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health pract ices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

The reference method is divided into two parts. The first is used to identify rubber in the raw state and, when compounded, both in the cured and uncured state. The second part describes methods used to detect different rubbers in blends of rubbers, and to semiquantitate the amounts of each rubber present. This method is suitable for identifying natural and synthetic rubbers of Section V, Chapter 40 Subheadings 4001 and 4002 of the Harmonized Tariff Schedule of the United States.

2 REFERENCES

ASTM D 3677
Test Methods for Rubber Identification by Infrared Spectrophotometry

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ASTM D 2227
Specification for Natural Rubber (NR)
Technical Grades

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health pract ices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

The reference lists physical and chemical requirements for six technical grades of raw natural rubber. Section Vll Chapter 40 Subheadings 4001.22.00.05 thru 4001.22.00.50 are the Harmonized Tariff Schedules for five different grades of technically specified natural rubber, not all of which are covered by the ASTM method. The Harmonized Tariff Schedule Explanatory Notes lists the parameters (physical and chemical requirements) for the specific grade in its subheading.

2 REFERENCES

ASTM D 2227
Specification for Natural Rubber (NR)
Technical Grades

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ASTM D 3452
Practice for Rubber - Identification by Pyrolysis-Gas Chromatography

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health pract ices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

This reference is a guide to identifying polymers in raw rubbers, and in polymer (rubber) blends. The rubber can be either cured or uncured single polymers, or of specific polymer blends. The identification is done by comparison with the pyrolysis-gc pattern (pyrograms) of their pyrolysis products. Analysis presupposes a working knowledge of gas chromatography, and its principles sufficient to analyze and interpret the results consistent with the needs of Section Vll Chapter 40 Subheadings 4001 through 4002.

2 REFERENCES

ASTM D 3452
Practice for Rubber - Identification by Pyrolysis-Gas Chromatography

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ASTM D 1417
Test Methods for Rubber Latices - Synthetic

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health pract ices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

This method is suitable for some procedures in the analysis of synthetic rubber latices in Section Vll Chapter 40 Subheadings 4002.11.00, 4002.41.00 and 4002.91.00 of the Harmonized Tariff Schedule of the United States (HTSUS). This method is also suitable for the determination of bound styrene in butadiene-styrene copolymers containing 50% or less bound styrene in the dried polymer. HTSUS Subheadings 4002.11.00.00 and 4002.19.00.10/ 4002.19.00.20 noted.

2 REFERENCES

ASTM D 1417
Test Methods for Rubber Latices - Synthetic

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ASTM D 297
Test Methods for Rubber Products - Chemical Analysis

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health pract ices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

The reference test method includes both qualitative and quantitative analyses of rubber products. A number of spot tests for identifying the presence of different types of rubbers are included in an Appendix. In Part A of the method are tests which will determine the amount of nonrubber products present. The amount of rubber can be indirectly calculated from the data obtained in Part A. The determination of the amount of a specific rubber in a rubber product is covered in Part B of the method, All natural and synthetic rubbers (except ethylene-propylene-nonconjugated diene) of Section Vll Chapter 40 Headings 4001 and 4002, can be tested by Part B of this method, whether or not they be crude unvulcanized, reclaimed or vulcanized.

Note: This method may involve the use of hazardous materials (such as carcinogens). Use of hazardous chemicals is subject to the current safety regulations.

2 REFERENCES

ASTM D 297
Test Methods for Rubber Products - Chemical Analysis

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ASTM D 3182
Recommended Practice for Rubber - Materials, Equipment, and Procedures for Mixing Standard Compounds and Preparing Standard Vulcanized Sheets

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health pract ices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

1.1 A list is given of reference compounding materials needed to prepare the rubber test compounds given in the following methods, including that for the vulcanizing equipment and procedures for preparing Standard Vulcanized Sheets. These sheets are used in the preparation of test strips which will be tested to see if they conform to the requirements of Section Vll Chapter 40 note 4 (a) of the Harmonized Tariff Schedule of the United States (HTSUS). This is done in order to determine whether the product is a rubber of Chapter 40. If the product does not conform, then it may be a polymer of Chapter 39, if it conforms to that Chapter's head notes.

1.2 For the purposes of Note 4 (a) (HTSUS), the listing of the Industry Reference Materials includes 2 different carbon blacks which are not allowed in the testing in Note 4 (a) as provided for by Note 5 (b) (ii) and (iii).

1.3 Note: The use of hazardous chemicals is subject to the current regulations.

2 REFERENCES

ASTM D 3182
Recommended Practice for Rubber - Materials, Equipment, and Procedures for Mixing Standard Compounds and Preparing Standard Vulcanized Sheets

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ASTM D 412
Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health pract ices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

The procedures found in the methods are those used to evaluate vulcanized rubbers and thermoplastic rubber, or thermoplastic elastomer specimens. Specifications for the test specimens are given. The tests include tensile set (return), and elongation (at break) for polymer products as specified in Section Vll Additional U.S. Note 1 of Chapter 39 for elastomeric polymers, or Note 4(a) of Chapter 40 for synthetic rubbers of the Harmonized Tariff Schedule of the United States (HTSUS).

2 REFERENCES

ASTM D 412
Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension

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ASTM D 1416
Test Methods for Rubber from Synthetic Sources - Chemical Analysis

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health pract ices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

The reference method contains a number of tests which are applicable for vulcanized and unvulcanized rubbers. All of the tests can be used on solid uncompounded styrene-butadiene copolymer type (SBR) when needed by the Harmonized Tariff Schedule of the United States (HTSUS). In the determination of percentage bound styrene for Section Vll of Chapter 40 Subheading 4002.19.00.10, the method is performed only on emulsion polymerized SBR type copolymers containing less than 55% bound styrene. This method is not applicable to solution polymerized styrene butadiene copolymers. When an SBR copolymer does not conform to Section Vll Chapter 40 Note 40 (a) for rubber, the % bound styrene determination by the method can be used to determine the heading and subheading of the copolymer.

2 REFERENCES

ASTM D 1416
Test Methods for Rubber from Synthetic Sources - Chemical Analysis

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ASTM E 433
Test Method for Sulfur in Organic Compounds by Oxygen Flask Combustion

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health pract ices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

Liquid and solid organic compounds, containing sulfur in their structural formula, can be analyzed for sulfur by the oxygen flask (Schoniger) technique. The liquid tested has to be nonvolatile at room temperature. This method is to be used as applicable to the analysis of commodities covered in the Harmonized Tariff Schedule of the United States (HTSUS).

2 REFERENCES

ASTM E 433
Test Method for Sulfur in Organic Compounds by Oxygen Flask Combustion